

IN THE CLAIMS:

- 1-3. (cancelled)
4. (original) A method of manipulating neuronal ion channels, comprising: transfecting a fast-spiking neuronal cell with a vector encoding an siRNA directed against an mRNA encoding a Kv3.4 protein wherein said siRNA is capable of inhibiting Kv3.4 expression in said cell.
5. (original) The method of claim 4, wherein said cell is in vivo.
6. (original) The method of claim 4, wherein said cell is in vitro.
7. (original) The method of claim 4, wherein said cell is isolated ex vivo.
8. (original) The method of claim 4, wherein said cell is a neuronal stem cell.
9. (original) The method of claim 4, wherein said cell is a globus pallidus neuron, a hippocampal interneuron, or a subthalamic neuron.
10. (original) The method of claim 7, further comprising the step of transplanting said cell into a subject.
- 11-16. (cancelled).